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Spaceport News

America's gateway to the universe. Leading the world in preparing and launching missions to Earth and beyond.

http://www-pao.ksc.nasa.gov/kscpao/snews/snewstoc.htm John F. Kennedy Space Center

NASA Administrator Dan Goldin resigns

After nearly ten years as the head of America's space program, NASA's longest-serving Administrator, Daniel Goldin, Oct. 17 announced his resignation, effective Nov. 17.

"For nearly a decade, it has been my honor to serve the American people by leading our Nation's space program and its dedicated personnel," Goldin said in a letter to President George W. Bush. "It was the highlight of my life when your father asked me in 1992 to serve as America's ninth Administrator for the National Aeronautics and Space Administration."

In his letter, the Administrator added he was happy and proud to serve three presidents and considered it an honor and a duty to stay when President Bush asked him to minister the office until a new NASA Administrator was found.

"We have been through a lot together these past ten years. Our Agency's greatest strength is this team of highly qualified and diverse people."

DAN GOLDIN
NASA ADMINISTRATOR

While no replacement has been selected, Goldin will work with the Administration before he leaves office to identify an interim Acting Administrator.

Kennedy Space Center Director Roy Bridges praised the Administrator's efforts.

"Dan Goldin has been dedicated to America and its space program throughout his tenure as NASA Administrator," Bridges said. "Our track record of Space Shuttle and Expendable Launch Vehicle missions are testimonies to Mr. Goldin's commitment to safety and excellence.

"KSC will carry on his commitment as we pursue our exciting mission of space exploration and development. Clearly without his leadership we would not have a Space Station at all."

Goldin, 61, was appointed administrator April 1, 1992, by then President George Bush and became the Agency's longest-serving chief on March 5 surpassing James Fletcher's previous record of nearly nine years.

The Administrator also announced he has accepted an interim position as a senior fellow for the Council on Competitiveness in Washington, D.C., as he transitions into the private sector.

The Council sets an action agenda to drive U.S. economic competitiveness and leadership in world markets to raise the standard of living for all Americans, and focuses on strengthening domestic innovation, upgrading the workforce, and benchmarking

(See GOLDIN, Page 6)

Inside

Busy time for ISS processing

Payload processing at KSC hit a record high over the past 12 months, with eight Space Station components prepared for first flight, a feat not likely to be soon duplicated.

"As a result of the outstanding KSC team of NASA and contractor employees, the International Space Station has successfully completed Phase II assembly," said said Russell Romanella, deputy director for operations, ISS/Payload Processing Directorate.

The processing utilized every skill in NASA and Boeing concerned with payload processing, including support from the design centers, Marshall Space Flight Center, Huntington Beach, Canoga Park and the program management

(See ISS, Page 6)

ISS Utilization Conference held

Kennedy Space Center Director Roy Bridges led a plenary session and was a keynote speaker at The International Space Station Utilization Conference Oct. 15-18.

The event, featuring presenters from NASA centers as well as from international academic and industry organizations, was held at the Radisson Resort at the Port in Cape Canaveral.

The conference offered researchers and entrepreneurs the opportunity to exchange ideas and information with Space Station personnel as well as with their colleagues. The Boeing- and NASA-sponsored event was co-hosted by NASA's Kennedy Space Center and the Florida Space Research Institute (FSRI).

The kick-off plenary session was chaired by Bridges and FSRI Executive Director Sam Durrance. Bridges was also a keynote speaker for the conference banquet Oct. 16.

"I think the International Space Station holds a lot of promise for helping us understand how to live and work in space so we can continue to explore this great big universe God created for us," Bridges said.

Recognizing Our People

Awards

The following KSC team members, all but one of whom work for Space Gateway Support (SGS), received Gold Dollars and Life Saving Ribbons on Oct. 5. Center Director Roy Bridges presented the Gold Dollars and Michael Butchko, president of SGS, presented the Life Saving Ribbons.

Gold Quality Dollar

David Seymour

Tony Woods

Shawn Exline

Life Saving Ribbons

Don Minick

Mike Reinhardt

Roger Tome

Mary Kirkland

Walter Alexander

Bob Boswell

Mary Casey

Ron Cothern

John Hildebrand Jr.

Don Largent

John Reinholdt (USA)

David Slaughter

Alan Towne

Ted Wallace

Mark Williams

Dan Zimmer

Outstanding Secretarial/Management Support Assistant

Charlene Laferriere
VB-C

Maxine Johnson
YA

Employees of the Year

The 2001 Employees of the Year pictured (from left) are Billy Wilson, Spaceport Services; Cathy Gieseler, Office of the Chief Counsel; Jalane Shelton, Procurement Office; Joy Jones, Chief Financial Office; Henry Schwarz, Shuttle Processing; Carol Aiello, Joint Performance Management Office; Ralonda Farrant, Spaceport Engineering & Technology; Pam Steel, External Relations & Business Development; James Sudermann, ELV & Payload Carriers Programs. Not shown are Polly Gardiner, ISS/Payloads Processing, and Linda Ackroyd, Safety, Health & Independent Assessment.

October Employees of the Month

October Employees of the Month pictured (from left) are Maxine Cherry, Safety, Health & Independent Assessment; Jade Rymkos, Shuttle Processing; Janice Justice, Spaceport Engineering & Technology; Armondo Piloto, ELV & Payload Carriers Programs; Loretta Dreier, Workforce & Diversity Management; Cathy Clark, Spaceport Services; and Sharon Dupke, Chief Financial Office. Not shown is Damon Nelson, ISS/Payloads Processing.

Customer service critical to KSC mission

"If we're not customer-driven, our cars won't be, either."

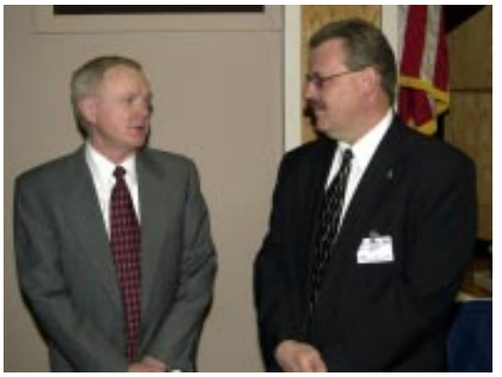
Henry Ford's statement underscores the need for excellent customer service in any industry. A business will not survive, let alone grow, without dedication to its customers.

Kennedy Space Center is a customer-driven organization. This message was emphasized at the kickoff ceremony for National Customer Service Week Oct. 2, with its theme of "Building our Future… One Customer at a Time."

The featured speaker was Larry Sutton, North American sales manager for Corning Inc. In the course of its 150-year company history, Corning has manufactured an impressive range of innovative products from cookware to fiber-optics, as well as the windows for the International Space Station and windshields for the Space Shuttle.

The audience was welcomed by JoAnn Morgan, director of External Relations and Business Development.

Following a stirring rendition of the National Anthem led by Spaceport Manager Suzy Cunningham, Center Director Roy Bridges set the stage with his opening remarks.



Kennedy Space Center Director Roy Bridges (left) discusses customer service with featured speaker Larry Sutton, American sales manager for Corning Inc.

Bridges emphasized that customer service is of vital importance at KSC, a determining factor in our survival as a spaceport.

"We must constantly evaluate and reinvent ourselves to maintain our customers' loyalty in the face of evolving technologies," he said. "At KSC, we understand that it's important to predict what our customers will need in the future, and to be ready."

Sutton echoed these points, explaining how Corning's dedication to its customers and constant reinvention has kept the company thriving for 150 years.

"Corning's foundation and focus is our Total Quality Policy," explained Sutton. "That means knowing who the customer is and what their requirements are, and meeting those requirements better than anyone else, on time and without error. We want to delight the customer."

The KSC employees present at the ceremony mirrored that sentiment. National Customer Service Week is a time to recognize those dedicated employees who work year-round to satisfy our customers anytime, anywhere, ensuring a bright future for us all.

Blind comedian inspires workers with humor

"There's no such word as can't," echoed throughout the Kennedy Space Center training auditorium Oct. 12.

This motto was part of blind comedian Alex Valdez' presentation to a rapt audience during the 2001 National Disability Employment Awareness Month (NDEAM) program, sponsored by KSC's Disability Awareness and Action Group (DAAWG).

To serve the hearing impaired in the audience, the program was signed by Nicole DelVesco, NDEAM program chairwoman, and Stephanie Watkins, from the Space Coast Center for Independent Living.

Opening remarks by Roslyn McKinney, NASA's Disability Program manager, were followed by short presentations from Kurt Leucht, DAAWG Education and Awareness Committee chair and Wayne Kee, Emergency Preparedness officer and charter member.

Then Valdez took the stage, accompanied by his guide dog, Rocca.

Using a humorous slant, he spoke about people's reactions to his blindness, what led to his loss of sight and what led him to become the first blind stand-up comedian in the United States. He discovered that he could control people's response to his disability with the use of humor.

His first appearance as a comedian was June 6, 1977, at the Comedy Store in California, and the rest is history. Valdez travels throughout the country bringing his humorous and encouraging message to many people.

Following his program, comedian Alex Valdez receives a presentation from National Disability Employment Awareness Month Chairwoman Nicole DelVesco.

"We are all different on the outside. But we're all the same inside," Valdez said. "The disability of attitude has counterparts to the disability of the body."

Valdez encouraged the audience "to always take a chance; otherwise we don't learn."

He explained to the audience that courage and faith are some of the "tools" he gathered from life's experiences.

He followed up with this statement, "At times life may be hard. But if I learn from my mistakes, then I grow.

"Faith has kept me going, and I hope that your faith will help you to keep going too," Valdez concluded.

Marvin Jones, associate director of KSC, and DAAWG chair, helped close the afternoon program by recognizing the leadership of DAAWG committee members in helping make KSC a more disability friendly place to work.

"This presentation was particularly outstanding," Jones said

Jennifer Skaja, a DAAWG committee member and Americans With Disabilities Act manager at KSC Visitor Complex commented, "Alex Valdez' presentation was clever in the way he used humor to convey his message. His message about attitude is very important to KSC and I think that many people who were here today will remember his words for some time to come."

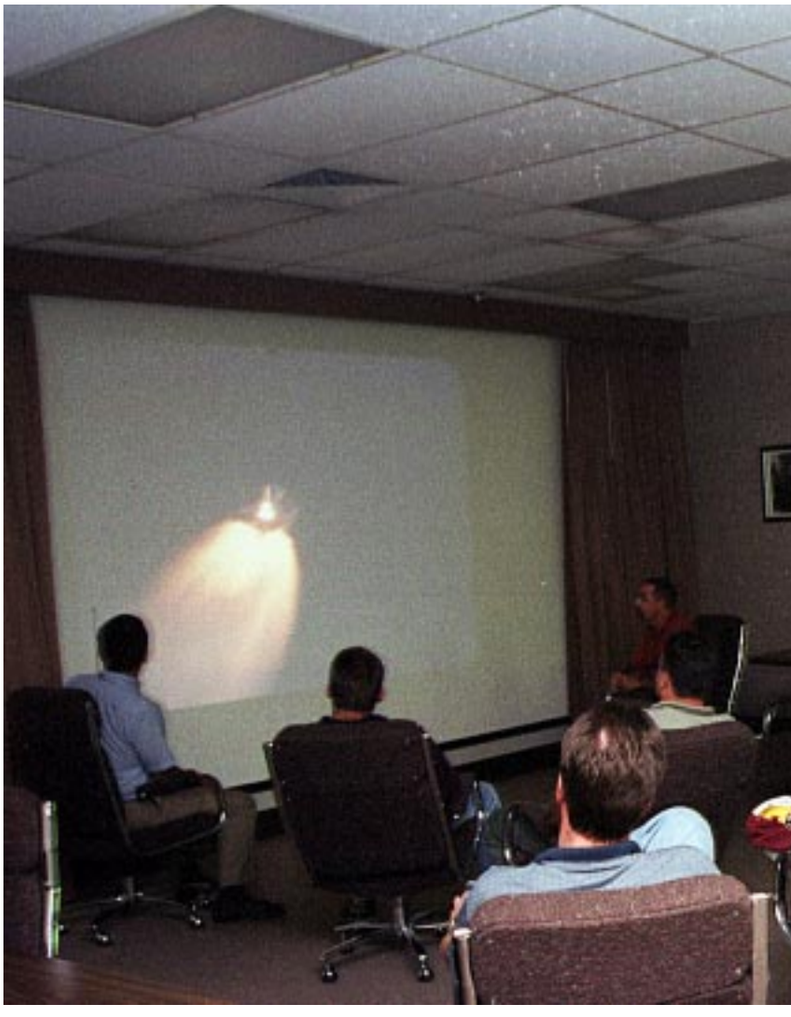
Javan Banks, from NASA's Information Technology Directorate, said, "It was different from what I expected. Yet, I always find good things in the unexpected."

Leta Silva, who is hearing-impaired, and works in KSC Visitor Complex services for guests with disabilities, summed it up nicely, "I really liked his philosophy that 'there's no such thing as I can't.'"

Inside

NASA engineers (from left) Mike Payne, Armando Oliu and Robert Speece perform motion analysis of the Orbiter's body flap.

Composite launch video is carefully reviewed by Mike Payne, Scott Otto and Robert Speece.



Members of the Image Analysis Team review long-range tracking film of the ST

During launch, the Space Shuttle is subjected to massive amounts of heat and vibration.

The Shuttle's Solid Rocket Boosters consume more than 10 tons of fuel per second, producing horsepower equal to about 14,700 locomotives. The Shuttle's main engines, fed by the External Tank, produce power equivalent to 23 times that of Hoover Dam.

With such an enormous release of energy, the potential for tiles being damaged by debris kicked up against the Shuttle is great. The possibility for other malfunctions on the exterior of the Shuttle is also ever present.

That's why the Image Analysis Team at Kennedy Space Center uses a selection of videotapes and 44 film items to carefully study the Shuttle during and after launch. Footage of Shuttle landings is also reviewed by the team.

Similar teams at Johnson Space Center and Marshall Space Flight Center review the launch and landing video and films.

The Image Analysis Team at KSC is a subgroup of the Ice/Debris Team and includes about 10 to 15 management and engineering representatives from NASA, United Space Alliance, Lockheed-Martin, Thiokol and The Boeing Co. The Ice/Debris Team is known for performing in-person visual inspections of the Shuttle before launch and after landing.

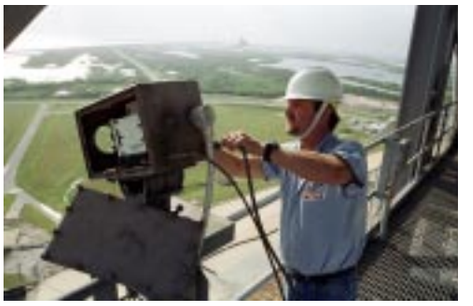
Soon after launch, the Image Analysis Team meets to view videotapes of the Shuttle's liftoff and ascent as a preliminary review. Within the next 24 hours, after the first series of films are developed, the group meets again. The films are carefully reviewed several times, and then sections of certain films many times more if problems are detected. A second series of films is reviewed the following day.

Any film showing debris or other abnormalities during the launch are reviewed in slow motion and frame by frame on screen. Microscopes and other equipment are also used to review film frame by frame.

Several years ago, for example, the group discovered problems with the

Image Analysis

S-105 Space Shuttle ascent for any anomalous events.



Photographer Kim Shiflett installs a high-speed motion picture camera in a protective housing on the Fixed Service Structure.

Kim Shiflett, left, installs a camera at one of the pad perimeter sites while Johnson Controls Photo Planner Robbie Robinson refers to the Photographic Acquisition Disposition Document for proper setting of the camera being installed.

Photographer Gina Mitchell-Ryall operates a Kenetto Tracking Mount.

External Tank's new insulation, which was flaking off and damaging tiles during launch. Members of the group helped ET engineers come up with a solution to the problem.

"We've got a dedicated group of individuals who've been doing this for years, some of them since the first Shuttle launch. After 100-plus Shuttle launches, we know just what to look for," said Armando Oliu, lead of the both the Image Analysis and Ice/Debris Teams. "We're concerned about any problems that might affect the Shuttle during its mission and for anything that might need addressing for future launches."

When needed, the team calls in other ET, SRB and Shuttle experts to review significant abnormalities.

The films taken at the pads and Shuttle Landing Facility are made by Johnson Controls Aerospace Imaging, the Image Acquisition contractor for KSC and the 45th Space Wing.

Sixteen- and 35-mm films, shot at up to 400 frames per second and up to 200 frames per second, respectively, are produced by remote-controlled cameras set up in strategic locations on the Mobile Launcher Platform, Fixed Service Structure, and perimeter sites around the pad. Film cameras on a series of trackers, driven by Johnson Controls photographers, are used to capture Shuttle images during ascent and landing.

The 30-member Johnson Controls group is responsible for producing video and still photography for both engineering and public relations purposes. Work for the Image Analysis Team and other engineering groups accounts for 75 percent of Johnson Controls' production.

Video reviewed by the Image Analysis Team is produced by United Space Alliance's Operational Television. OTV was highlighted in the Inside feature of the Oct. 12 *Spaceport News*.

"A launch happens so fast," Oliu said. "Without video, and especially film, we'd never have been able to trace back and remedy many of the problems we've detected. It's an essential part of mission safety."

GOLDIN ...

(Continued from Page 1)

national economic performance.

In a speech to NASA employees broadcast nationwide on NASA Television, Goldin thanked the Agency workforce and applauded their dedication.

"We have been through a lot together these past ten years. Our Agency's greatest strength is this team of highly qualified and diverse people," Goldin said.

"Each and every day, you have demonstrated an unyielding devotion to teamwork, communication, creativity and respect.

"You are clearly committed to excellence. I am proud to have been a part of that commitment and NASA's continuing mission to expand the frontiers of flight, space and knowledge."

During his tenure, Goldin initiated a revolution to transform America's aeronautics and space program. Despite lower budgets, his "faster, better, cheaper" approach enabled NASA to deliver programs of high value without sacrificing safety.

Through aggressive management reforms, he reduced annual budgets by $40 billion. He implemented a more balanced aeronautics and space program by reducing human space flight funding from nearly half of NASA's total budget to a little more than one-third. This allowed him to increase funding for science and aerospace technology by more than 10 percent.

While serving as Administrator, the Agency's civil service workforce was reduced by about a third, while the Headquarters' civil service and contractor workforce was reduced by more than half. However, during this time, NASA's overall productivity climbed 40 percent.

Goldin cut the time required to develop Earth- and space-science spacecraft by 40 percent and reduced the cost by two-thirds, while increasing the average number of missions launched per year by a factor of four. The number of Earth-observing satellites in orbit, collecting vital data, has tripled over the past nine years.

The Administrator played a pivotal role in redesigning the International Space Station, and he reduced Space Shuttle costs by about one-third, while improving all of NASA's safety indicators. He has been a vigorous proponent for increased exploration of Mars, and expanded opportunities for public and educational participation in space exploration.

NASA contract awards to minority, small and disadvantaged businesses, and women-owned ventures, have more than tripled.

During Goldin's tenure, NASA launched 171 missions, of which 160 have been successful.

"Being appointed NASA Administrator was the fulfillment of a childhood dream. This is the greatest job in the world and it is difficult to leave a job you love," Goldin concluded. "But NASA's mission of discovery will continue. Humanity will continue to benefit from the fruits of this journey and I am proud and deeply humbled by the opportunity that was given me. The people of NASA have my unconditional respect and eternal gratitude."

Before coming to NASA, Goldin was vice president and general manager of the TRW Space and Technology Group in Redondo Beach, Calif. During a 25-year career at TRW, he led projects for America's defense, and conceptualized and managed production of advanced communication spacecraft, space technologies and scientific instruments.

Goldin began his career in 1962 at NASA's Lewis Research Center in Cleveland, now known as the Glenn Research Center. While there he worked on electric propulsion systems for human interplanetary travel.

ISS ...

(Continued from Page 1)

center in Houston.

The year-long undertaking involved hundreds of KSC workers, with the support of thousands across the country.

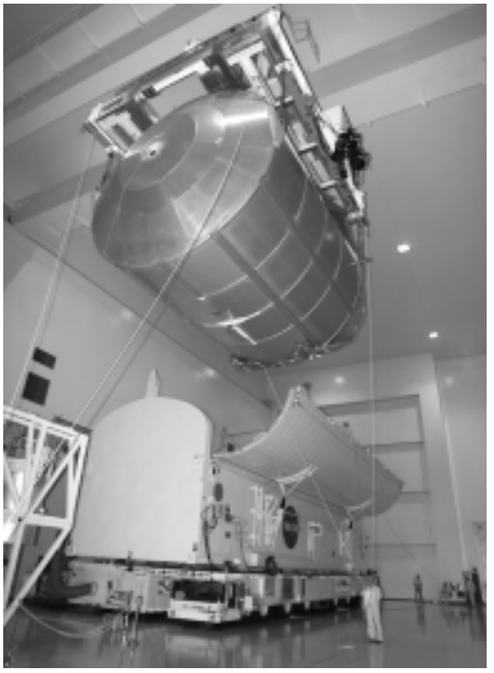
The components – the Z1 truss, the P6 truss, the U.S. Lab Destiny, the Canadian robotic arm, three Multi-Purpose Logistics Modules, and the Joint Airlock Module (named Quest) underwent final assembly, system level qualification testing, acceptance testing and pre-flight preparations.

"Our payload processing team has once again proven that no challenge is too large or too complex," said Bruce Melnick, Boeing vice president and senior site executive for Florida Operations. "This outstanding achievement would not have been possible without the dedication and professionalism of every member of the team whether they worked in Florida, California, Huntsville or elsewhere.

"As we move forward with ISS assembly, this team will prove, again and again, how valuable their contribution is to the safety of our astronauts and the Human Space Flight Program."

Requiring the most time for processing were the P6 truss and the Destiny module.

"Both are exceptionally complex with a requirement for very high reliability," said Dave Bethay, Boeing director of ISS Operations. "The P6 provides primary power and cooling for the Station and includes the large solar wings.



A Multi-Purpose Logistics Module is lifted into the payload canister in the Space Station Processing Facility.

"Destiny is the centerpiece of the Station with command and control capabilities and a unique laboratory for experiments.

"Yet each component brings something completely new to the program. P6 had the solar array wings and thermal radiators; Destiny is the brains of the station with a one-of-a-kind research facility; the Canadian Robotic arm is a wonder of new technology; and Quest needed to provide access to space for both U.S. and Russian crew members utilizing their own space suits."

The MPLMs presented their own challenge. They were built to deliver racks of equipment, supplies and experiments to the Space Station.

On orbit, the racks can be floated through the MPLM and onto the Station, and vice versa.

On Earth, a different method is needed. To easily move the supplies into and out of the modules, Boeing engineers designed and built a rack insertion device.

Controlled remotely, the device's robot-like arm grasps the racks and moves them into the modules, placing the racks along the walls.

"Exercising new processes for cargo and MPLM processing was challenging enough; doing two the first time through added to the challenge," said Mark Hutchins, Boeing resupply/return technical lead.

"The people made the difference. We're now challenging ourselves. Process improvement initiatives are going full throttle."

At this date, missions targeted for 2002 involve delivery of six elements to the Space Station, including three trusses and the Mobile Base System that joins the Canadarm2 as part of the Mobile Servicing System.

Challenges for the processing team, according to Hutchins, range from use of late-access equipment in the Payload Changeout Room at the pad, and a series of tests on a Shuttle convoy vehicle assuring it works properly to protect science returning from the Station.

KSC Visitor Complex hosts Hubble exhibit

Oct. 5 marked the grand opening of "Hubble Space Telescope: New Views of the Universe," a special exhibit at Kennedy Space Center Visitor Complex.

The exhibit is designed to display to the public the accomplishments and achievements of the Hubble Space Telescope mission.

Not only can visitors view the exhibit, but interact with it as well. In addition to a scale model of the Hubble, the display features over a dozen hands-on activities.

"Cosmic Collisions" allows visitors to simulate a comet crashing into Jupiter, and view the computer animated results. Other activities include displays which calculate astronomical figures, and demonstrate how astronauts service the Hubble.

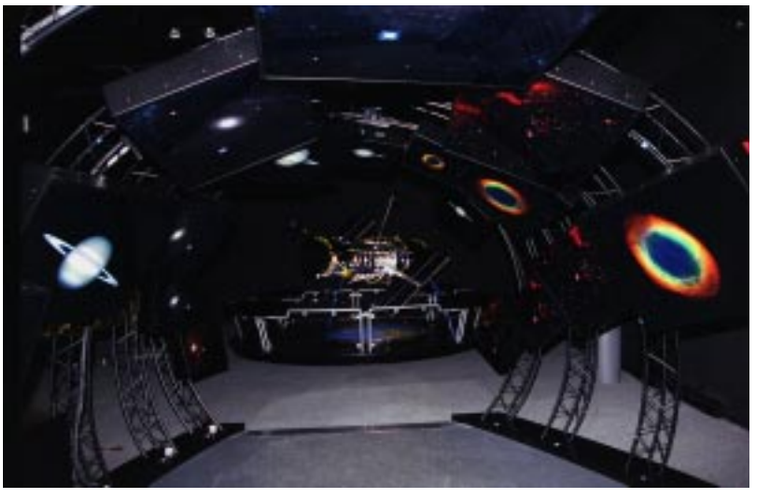
"With the third Hubble Servicing Mission scheduled to launch in February 2002, there couldn't be a better time for us to share with the public the amazing discoveries this telescope has made," said Rick Abramson, president and chief operating officer of Delaware North Parks Services of Spaceport Inc., operator of the Visitor Complex for NASA. "The colorful, hands-on nature of this exhibit enables us to not only tell the NASA story, but to show the NASA story."

The exhibit is organized by the Smithsonian Institution Traveling Exhibit Service and the Space Telescope Institute, operated for NASA by the Association of Universities for Research in Astronomy Inc.

The exhibit was made possible by funding from NASA's Offices of Space Science and Education, and Lockheed Martin.

The opening of the exhibit coincides with the Visitor Complex "Kids Free" promotion, which allows up to two children complimentary admission with one paying adult.

"This is an opportunity for parents to proudly show their children the achievements of the space program and to show them just how high the American flag has flown," Abramson said. The exhibit is now open to the public and runs through April.



Kennedy Space Center Visitor Complex is hosting an exhibit on the Hubble Space Telescope, pictured above, through April.

Papers sought for upcoming Space Congress

The 39th Space Congress, sponsored by the Canaveral Council of Technical Societies, will be held in Cape Canaveral April 29-May 3.

This congress is a gathering together of a significant portion of the world's aerospace community to discuss the status and future of space activities around the world.

The theme for this year's Congress is "Beginning a new era – initiatives in space."

Panel sessions and paper presentations will address how the combined efforts of the scientific, commercial, military and educational communities contributed in the past, and will in the future, to the growth of knowledge and understanding of space and to the well-being of humankind around the world.

For further information visit **http://www.SpaceCongress.org**.

The 39th Space Congress invites individuals from the United States and other nations who wish to offer papers and presentations on the listed subjects to submit a 200-word abstract no later than Nov. 9.

The 39th Space Congress invites individuals who wish to offer papers and presentations on the listed subjects to submit a 200 word abstract no later than Nov. 9.

E-mailed abstracts are preferred. Email to SpaceConTechPapers@kscems.ksc.nasa.gov or mail to Mail Code: JP-B, Kennedy Space Center, Florida 32899.

The point of contact is Jeanne Hawkins, technical papers chairwoman. Call her at 476-4032 or fax to 476-4032

Authors should indicate on the top of each abstract which technical paper session the author believes the paper best fits, chosen from the list below. The professional affiliation, return mailing address, e-mail address, fax and telephone number should be attached.

All abstracts will be forwarded to the appropriate paper session chairman, who will make the final selection of papers to be presented and published in the congress proceedings.

The abstract authors who are selected for presentations will be notified by the end of November.

These presenters will be given specific instructions and format requirements by the paper session organizers.

Please disseminate this call to other interested parties throughout your organization. Congress organizers are looking forward to a broad spectrum of participation in this year's congress from all sectors of the space community.

Topics for the technical paper sessions:

- A new era in access to space
- Space business initiatives
- ISS, a new era in human presence in space
- Exploration initiatives
- Cutting edge technology
- Hubble discoveries
- Education
- Florida's role in space research
- Preparing for the future by looking at our past

40 years later: Saturn SA-1 remembered

The successful launch Oct. 27, 1961, of Saturn Vehicle SA-1 was an important step toward a lunar landing. It also helped boost American spirits after escalation of the Cold War with Russia – raising of the Berlin Wall just 2 months earlier.

The Saturn team faced several potential negatives to the launch: no previous maiden launch had gone flawlessly, the rocket was more complicated than earlier ones, officials were giving only a 75 percent chance of success, and, if successful, high noise levels were predicted to cause shattered windows and Earth tremors as far away as 12 kilometers.

Ike Rigell, who worked with the electrical systems on the Saturn, said, "The rocket was new but the components, like engineering and guidance, were familiar. Still, the challenge was to get all the engines to work together. The early ignition and liftoff systems were the most difficult. Skeptics thought it wouldn't work."

Terry Greenfield, who was chief of the Electrical System Branch within the Guidance and Controls Division, was responsible for the ground and airborne electrical systems.

Greenfield recalled, "I felt very good about the first launch of the Saturn at Complex 34. The vehicle was developed using many items from the mature Redstone and Jupiter hardware inventory and the launch crew was the same too. It was, however, the beginning of many new experiences and challenges for the Missile Firing Lab.

"The countdown procedure was less than 50 pages – people were trusted more than paper then. I was at a launch sequence monitor console, along with Ike Rigell and W.O. 'Curly' Chandler, watching the events clicking off. When I finally saw the 'All Engines Running,' it meant that all eight of the H1 engines had properly fired and I knew we were going to launch."

At 10:06 a.m., the launch sequencer ordered the firing of a solid propellant charge, releasing gases that accelerated a turbine that in turn drove fuel and the LOX pumps. Hydraulic valves opened, allowing RP-1 and LOX into the combustion chambers, along with a hypergolic fluid that ignited the mixture. The engines fired in pairs of four, developing full thrust in 1.4 seconds.

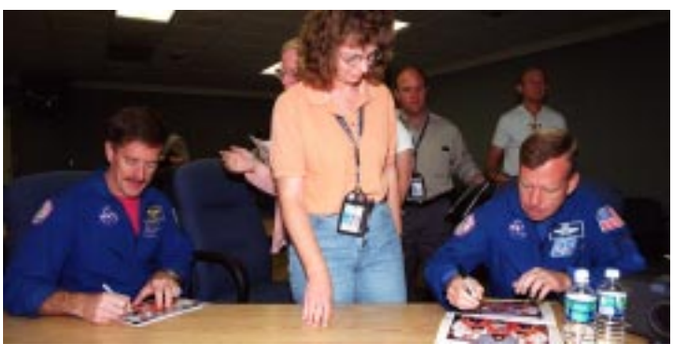
A final rough combustion check was followed by ejection of the LOX and RP-1 fill masts from the booster base. The four hold-down arms released the rocket 3.97 seconds after first ignition. Saturn 1 lifted off pad 34.

Happily, the roar of the eight engines had less of an impact than expected: trailer windows at the viewing site shook but did not shatter. Engineers and KSC's director at the time, Kurt Debus, were overjoyed at the nearly perfect launch.

Eight minutes later, having proved its capability, the Saturn 1 vehicle impacted in the Atlantic Ocean, 344 kilometers downrange.

Remembering Our Heritage

Forty years ago, the Saturn Vehicle SA-1 lifted off pad 34 on Oct. 27, 1961. The successful launch helped set the stage for the lunar landings.



STS-104 crew return

STS-104 Mission Specialist James Reilly (left) and Commander Steve Lindsey autograph memorabilia for Kennedy Space Center employees after their mission briefing.

John F. Kennedy Space Center

Spaceport News

Spaceport News is an official publication of the Kennedy Space Center and is published on alternate Fridays by External Relations and Business Development in the interest of KSC civil service and contractor employees.

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